

**Montana Board of Oil and Gas Conservation
Environmental Assessment**

Operator: Continental Resources, Inc.
Well Name/Number: Alma 3-25H
Location: SW NW Section 25 T23N R56E
County: Richland, MT; **Field (or Wildcat)** W/C (Bakken Horizontal)

Air Quality

(possible concerns)
Long drilling time no, 20 to 30 days drilling time.
Unusually deep drilling (high horsepower rig) no, 20,385' MD – 10,417TVD
Possible H2S gas production slight
in/near Class I air quality area no
Air quality permit for flaring/venting (if productive) Yes, DEQ air quality permit required under 75-2-211.
Mitigation:
☒ Air quality permit (AQB review)
☐ Gas plants/pipelines available for sour gas
☐ Special equipment/procedures requirements
☐ Other: _____
Comments: no special concerns

Water Quality

(possible concerns)
Salt/oil based mud yes, freshwater and freshwater mud system on surface hole and oil based saltwater mud system on mainhole and saltwater for horizontal laterals.
High water table no
Surface drainage leads to live water no, closest drainages is an unnamed ephemeral tributary drainage to the North Fork Fox Creek, about a 1/2 mile to the east of this location.
Water well contamination none - no nearby water wells. Surface casing will be drilled with freshwater and freshwater muds. Surface casing will be set and cemented to surface, from 1910'.
Porous/permeable soils no, bentonite soils
Class I stream drainage no
Mitigation:
☒ Lined reserve pit
☒ Adequate surface casing
☐ Berms/dykes, re-routed drainage
☐ Closed mud system
☐ Off-site disposal of solids/liquids (in approved facility)
☐ Other: _____
Comments: 1910' of surface casing cemented to surface adequate to protect freshwater zones.

Soils/Vegetation/Land Use

(possible concerns)
Stream crossings no, crossing.

High erosion potential no, small cut and small fill, required.
Loss of soil productivity no, location will be restored after drilling, if nonproductive. If productive unused portion of drill site will be restored.

Unusually large wellsite no, 400'X450' location size required.

Damage to improvements slight

Conflict with existing land use/values Slight

Mitigation

☐ Avoid improvements (topographic tolerance)

☐ Exception location requested

☒ Stockpile topsoil

☐ Stream Crossing Permit (other agency review)

☒ Reclaim unused part of wellsite if productive

☐ Special construction methods to enhance reclamation

☐ Other _____

Comments: Access will be over existing county road, #334. A short access from an existing road will be built. Drill cuttings will be disposed of in the lined reserve pit. Drilling fluids will be trucked to a commercial Class II disposal. Pit will be backfilled after remaining fluids have evaporated. No special concerns.

Health Hazards/Noise

(possible concerns)

Proximity to public facilities/residences no-nothing nearby

Possibility of H2S slight

Size of rig/length of drilling time Triple drilling rig/short 20 to 30 days drilling time

Mitigation:

☒ Proper BOP equipment

☐ Topographic sound barriers

☐ H2S contingency and/or evacuation plan

☐ Special equipment/procedures requirements

☐ Other: _____

Comments: Sufficient surface casing and working BOP should mitigate any concerns.

Wildlife/recreation

(possible concerns)

Proximity to sensitive wildlife areas (DFWP identified) n/a no

Proximity to recreation sites none identified

Creation of new access to wildlife habitat no

Conflict with game range/refuge management no

Threatened or endangered Species no

Mitigation:

☐ Avoidance (topographic tolerance/exception)

☐ Other agency review (DFWP, federal agencies, DSL)

☐ Screening/fencing of pits, drillsite

☐ Other: _____

Comments: . No concerns –Whooping Crane is only species of concern in this area

Historical/Cultural/Paleontological

(possible concerns)

Proximity to known sites None identified

Mitigation

☐ avoidance (topographic tolerance, location exception)☐ other agency review (SHPO, DSL, federal agencies)☐ Other: _____Comments: on private land

Social/Economic

(possible concerns)

☐ Substantial effect on tax base☐ Create demand for new governmental services☐ Population increase or relocationComments: no concerns

Remarks or Special Concerns for this siteNone**Summary: Evaluation of Impacts and Cumulative effects**No significant long term impacts expected, some short term surface impacts will occur, but will mitigate in time.

I conclude that the approval of the subject Notice of Intent to Drill (does/**does not**) constitute a major action of state government significantly affecting the quality of the human environment, and (does/**does not**) require the preparation of an environmental impact statement.

Prepared by (BOGC): Thomas Richmond(title:) AdministratorDate: January 24, 2014

Other Persons Contacted:

Montana Bureau of Mines and Geology, GWIC website

(Name and Agency)

Water wells in Richland County

(subject discussed)

January 24, 2014

(date)

Montana Cadastral Web site

(Name and Agency)

Aerial Photo Ownership

(subject discussed)

January 24, 2014

(date)

If location was inspected before permit approval:

Inspection date: _____

Inspector: _____

Others present during inspection: _____